

REMARKS

Claims 12, 14 to 36, 38 to 58, 60 to 75 and 80 to 82 remain pending in this application.

In the Final Office Action, the Examiner rejects claims 12 to 19 and 21 to 24 based on Kendall (US 6,207,925) in view of Nettesheim (US 6,387,209), wherein Kendall teaches superposing and bringing films into contact as well as exposing an area of the films to a laser beam for the purpose of sealing or cutting. In addition, the Examiner alleges that Nettesheim teaches (a) actuating a support mechanism interconnecting two jaws of an optical clamp to allow closing of the clamp whereupon the films are pressed between the jaws, (b) directing the laser beam through an aperture of the optical clamp (referring to Fig. 2 and 3 of the prior art), (c) re-injecting an unabsorbed part of the incident intensity by a reflective device to improve efficiency (referring to 4: 7-18 and Fig. 4 of the prior art).

Firstly, the Applicant points out that Kendall teaches away from Nettesheim, whereby these references cannot be combined in a proper obviousness rejection against claim 12. Namely:

- ♦ In col. 5: 58-60 and 62-63, Kendall teaches that a mechanical contact between the cut/weld apparatus and substrate is not desirable. Such a mechanical contact between the apparatus and the films is however described by Nettesheim. Accordingly, a person skilled in the art would not have been led to use the teachings of Nettesheim as it shows contact between apparatus and substrate.
- ♦ As cumbersome optics are demonstrated to provide a suitable beam to seal, whereby Nettesheim clearly teaches away from the use of a laser beam.

Secondly, Kendall teaches tensioning means limited to: projecting compressed air, using an electrostatic charge, preheating the films to make them adhere temporarily or using a roller. Nettesheim teaches that the jaw 10 has a window

36 made of "preferably scratch proof material, such as sapphire glass" (2: 49-50). The window 36 has a profiled outer surface 37 which is made to come into contact with the films: "surfaces 37 and 45 (Fig. 2) press together the two film layers" (3: 2-3). The same occurs when there is a window 61 on the counter shoe 11 (Fig. 4). Nettesheim teaches that the windows 36 and 61 are brought into in contact with the films in order to assure proper sealing.

Contrary to both these references, the clamp as defined in the claims allows sealing and cutting of the films using a laser beam that passes through an aperture of at least one of the jaws, by clamping the films about the area to be sealed/cut, leaving the area free of contact. This aperture in the clamp is not suggested by Nettesheim as the shoes or jaws described in Nettesheim show clear contact between the clamp and the film where the films are to be sealed and cut.

Accordingly, it is respectfully argued that claim 12 as currently amended distinguishes over the combined teachings of Kendall and Nettesheim.

Therefore, in view of the above arguments and amendments made to claim 12, all of the dependent claims 13 to 25 incorporate therein the same distinguishing limitations and are therefore not obvious in view of the teachings of Kendall when combined with Nettesheim. A favourable reconsideration of this rejection is therefore also solicited.

At point 8 of the Final Office Action, the Examiner rejects claims 26 and 31 for being obvious over Kendall in view of in view of Nettesheim.

Applicant points out that independent claim 26 has been amended to clarify that an intensity profile of a single laser beam simultaneously provides for the creation of the two seal regions separated by a cut region.

This is clearly not the case with the Kendall Patent, where three distinct beams are used, namely a central cutting beam and opposed side welding beams (4: 15-20). Additionally, each distinct beam in Kendall has its own scanner to scan a different

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region on the exposed films, and its own density modifier or focusing means to provide for one of a cut region or a seal region, as opposed to a single beam with a varying intensity profile as claimed in claim 26. In Kendall, the regions are formed by distinct beams, and the combined regions therefore define the total exposed area of the films (refer to 4: 63 to 5:4 and 5: 10-23). Kendall suggests "dividing each processing beam into three separate independently controlled and manipulated beams enables a variety of seal configurations to be obtained" (5: 24-25).

As Kendall clearly teaches away from the subject matter of claim 26, the objection is herein traversed. In view of the above arguments and amendments made to claim 26, all of the dependent claims 27 to 33 incorporate therein the same distinguishing limitations and are therefore not obvious in view of the teachings of Kendall when combined with Nettesheim. A favourable reconsideration of this rejection is therefore also solicited.

Referring now to the rejections of independent claim 34 in paragraph 13 of the Office Action as being obvious in view of the combination of Heydarpour, U.S. Patent 5,911,665, the Kendall and the Nettesheim reference, claim 34 is also amended to recite similar distinctions as in claim 26 above. Accordingly, independent claim 34 clearly, patentably distinguishes over this combination. Claims 35 to 53 are dependent on this claim directly or indirectly and are also patentably distinct from the combination. Therefore, a favourable reconsideration of these rejections is also requested.

Referring now to paragraph 18 of the Office Action, the Examiner rejected claims 54, 55, 58 to 70, 73, 80 and 82 based on Kendall when combined with Nettesheim. It is pointed out that claim 54 is amended to incorporate some of the language of claims 12, 26 and 34. Therefore, in view of the above arguments provided for claim 12, 26 and 34, a favourable reconsideration of the patentable merits of these claims is also earnestly solicited for the above-stated reasons.

Concerning independent claims 80 to 82, in view of the amendments submitted to these claims and their similarity with independent claims 12, 26 and 34,

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along with the above-given reasons, the Applicant believes that claims 80 to 82 are novel and non-obvious over the prior art.

In view of the above amendments and remarks, this application is now believed to be in condition for allowance and early notice to that effect is earnestly solicited.

Respectfully submitted,

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By: 

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(Date)

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